[0002] Cardboard tube cutting machines are already known[[,]] in which a cutting tool is provided which is stationary relative to the counter-holder. The cardboard tube, which is mounted on a counter-holder, is moved relative to the cutting tool by means of an ejector, the advance path relative to the cutting tool determining the tube length of a cut-off sleeve. These machines require a considerable constructional space, since their length requires at least twice the tube length of the cardboard tube to be processed.

[0014] Fig. 2 shows an end view of the apparatus, from the ~~right~~ left according to Fig. 1, and

[0015] Fig. 3 shows an end view of the apparatus, from the ~~left~~ right according to Fig. 1.

[0018] The guide rail 16 ~~has~~ includes a housing in which a threaded spindle 26 is rotatably mounted. The slide 17 has a corresponding guide element (not shown) which engages the threaded spindle 26. A servomotor or stepping motor 27 is provided at a drive-side end of the threaded spindle 26, and engages the threaded spindle 26 via a coupling 28.

[0019] The stepping motor 27 is selected such that, for example, a 1:1 transmission can take place from the drive shaft (not shown) of the motor 27 to the threaded spindle 26, so that precise driving of the slide 17 and thus an exact travel path with respect to the cutting tool 19 can be attained.

[0020] It can alternatively be provided that a gear is arranged between [[a]] the threaded spindle and [[a]] the motor 27. It can furthermore be alternatively

provided that the slide 17 is driven to travel along the guide rail 16 by means of a toothed belt, a chain, or the like.

[0022] In Fig. 1, a unit 30 is provided on slide 17, and has a non-rotatingly driven cutting tool 19. A unit 35 is furthermore shown which has ~~a motor driven~~ the cutting tool 19, which is driven by the motor 37.

[0025] Furthermore, the unit 35 can alternatively be provided, the cutting ~~knife~~ tool 33, in the form of a cutting knife 33 being driven by a motor 37. One or more units 30 or 35, which can also be provided in combination, can be selected according to the respective application.

[0026] The cutting tool 19 can be arranged to be resiliently compliant. During the cutting process, the cutting tool 19 is moved toward the counter-holder 13, for example, by means of a mechanism, compressed air, pneumatic system, or electric motor, or the like. During the movement, the tube 12 rotating on the counter-holder 13 is cut. After the cutting tool 19 nearly abuts the counter-holder 13 or contacts this, a possible further feed can be compensated by the resiliently compliant arrangement. The life of the cutting ~~knife 33~~ tool 19 can thereby be increased. The cutting quality can be thereby increased at the same time, due to the smaller damage to the cutting ~~knife 33~~ tool 19. It can be advantageously provided that the counter-holder 13 is arranged to be insulated with respect to the base frame 14, so that the cutting ~~knife 33~~ tool 19 comes into electrical contact when it strikes, or rests on, the counter-holder 13, upon which the feed movement or the cutting movement of the cutting tool 19 is immediately stopped. This or a

Attachment 4: Copies of amendments to the specification associated with pages 2 and 6 of the specification submitted on 04/03/2002. These amendments to the specification were found in the submission of 04/03/2008.

[0020] It can alternatively be provided that a gear is arranged between the threaded spindle and the motor 27. It can furthermore be alternatively provided that the slide 17 is driven to travel along the guide rail 16 by means of a toothed belt, a chain, or the like, e.g., the threaded spindle 26 shown in Figure 1.

[0022] In Fig. 1, a unit 30 is provided on slide 17, and has a non-rotatingly driven cutting tool 19. A unit 35 is furthermore shown which has the cutting tool 19, which is driven by the motor 37. The ejector 21 is arranged to the left of the cutting tool 19 of the unit 35. This ejector 21 has a movable bolt 39. The movable bolt 39 is movable in the direction toward the counter-holder 13. The ejector 21 is spaced apart from the counter-holder 13.

[0025] Furthermore, the unit 35 can alternatively be provided, the cutting tool 33, in the form of a cutting knife being driven by a motor 37. One or more units 30 or 35, which can also be provided in combination, can be selected according to the respective application. The ejector 21 is spaced apart from the units 30 or 53, as shown in Figure 1. The cutting units 30, 53 and 35 and the ejector 21 are each connected to the threaded spindle 26 by the slide 17 for movement along the guide rail 16. as shown in the upper portion of Figure 1.

[0028] The ejector 21 is arranged to the left of the cutting tool 19 of the unit 35. This ejector 21 is connected to the guide rail 16 through the ejector sleeve 41 and has a movable bolt 39 which is movable in the direction toward the counter-holder 13 or an ejector sleeve 41. As soon as, for example, the flange 18 has come into an ejector

position 24, the ejector 21 can be driven by means of a relay or by means of a control, as is known in the art , so that the bolt 39 engages in a groove 42 or in a correspondingly formed recess on the bolt 39. After this is positively arranged in the groove 42, the slide 17 can be guided over into the initial position 23, upon which the cut-off sleeve is ejected and is simultaneously guided away via a chute 43. Immediately before the end of the counter-holder 13, the bolt 39 is brought back into its initial position, so that the ejector sleeve 41 remains near the free end of the counter-holder 13, which is brought back into its initial position by loading a new tube 12 onto the counter-holder 13.